# Sentinel Crop

DECISION-SUPPORT AGRONOMIC INTELLIGENCE

PARTIAL REPORT

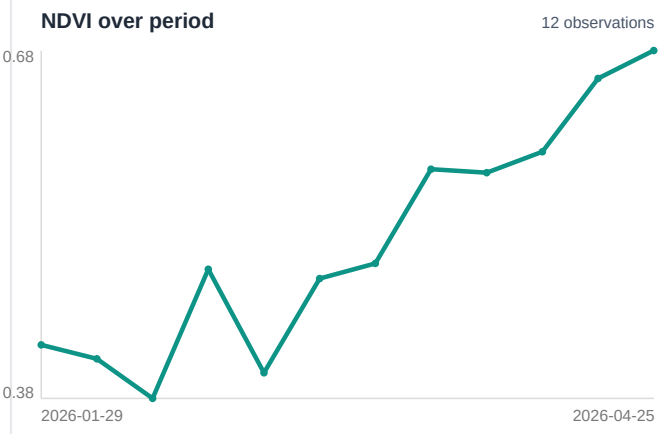
# Parcela Vill

| CROP | AREA | PERIOD | DATE |
|---|---|---|---|
| wheat | 5.53 ha | 2026-01-29 - 2026-04-29 | 4/29/2026 |

## EXECUTIVE SUMMARY

| | |
|---|---|
| **Overall status:** | Partial report. |
| **Vegetation status:** | Moderate NDVI (0.517) for wheat. |
| **Irrigation status:** | FAO-56 calculations available (3). |
| **Risk status:** | Alerts evaluated. |
| **Recommended next action:** | Review irrigation plan, upload soil analysis. |

## PARCEL & NDVI EVOLUTION


## NDVI SUMMARY (VEGETATION)

Observations (deduplicated): 12
Average NDVI: 0.517
Min NDVI in period: 0.383
Max NDVI in period: 0.682
Source: Sentinel-2
Interpretation: Moderate vegetation signal — monitor closely.

## FAO-56 SUMMARY (IRRIGATION)

Computations in period: 3
Latest calculation: 2026-03-11
Avg ET0: 0.24 mm/day
Avg ETc: 0.30 mm/day
Avg Kc dual: 1.261
Source: fao56_dual_kc_results (3)

## IRRIGATION EFFICIENCY — APPLIED vs RECOMMENDED (ETc)

## AGRONOMIC RECOMMENDATIONS

• Vegetation: NDVI average 0.517 indicates moderate vegetation signal for wheat. Continue monitoring, especially lower-vigor zones.

• Irrigation: FAO-56 calculations available (3). Review the irrigation plan and compare ETc with actual irrigation applied.

• Soil: soil analysis is not available. Upload or import a soil analysis to improve irrigation and fertilization recommendations.

*Rule-based recommendations derived from NDVI, FAO-56 and data availability.*

## AI AGRONOMIC INSIGHTS

### 1. Executive Summary

Your wheat crop in Parcela Vill is showing moderate vigor with an average NDVI of 0.44. While the crop's "thirst" (Kc dual) is high, the actual water consumed (ETc) remains low, indicating sufficient moisture for current demand. No immediate actions are needed beyond routine monitoring.

### 2. Crop Health (NDVI explained)

NDVI (Normalized Difference Vegetation Index) is a measure of your crop's greenness and vigor, calculated from satellite images. It ranges from 0 to 1, where higher values mean healthier, denser vegetation.

Your average NDVI for the period is 0.44. This indicates your wheat is in a moderate development stage, with good but not yet peak vigor. The crop is growing well but hasn't reached its fullest canopy.

### 3. Irrigation & Water Demand (FAO-56 explained)

The FAO-56 Dual Kc method is the world-standard way to calculate exactly how much water your crop needs each day, separating water lost from the soil surface (evaporation) from water used by the plant itself (transpiration).

• ET (Reference Evapotranspiration): This is the "atmospheric thirst"  the amount of water a reference grass crop would evaporate from the soil and transpire into the air under current weather conditions. Your average ET was 0.24 mm/day.

• Kc dual (Crop Coefficient): This tells us how thirsty your crop is right now, depending on its growth stage. Your average Kc dual is 1.26. This value indicates your wheat is in a stage of high potential water demand relative to the reference crop.

• ETc (Crop Evapotranspiration): This is the real amount of water your wheat crop actually consumes per day. It's calculated by multiplying ET by Kc. Your average ETc was 0.30 mm/day.

Despite the high Kc dual, your crop's actual water consumption (ETc) is quite low (0.30 mm/day). This means that while your wheat is in a growth stage where it could use a lot of water if available, the atmospheric conditions (low ET) are not driving Kc is high relative to reference ET, but absolute crop water demand remains low/moderate due to low atmospheric demand. Therefore, your crop is currently getting enough water to meet its needs.

### 4. Pests & Diseases

No active pest or disease alerts detected in this period  keep monitoring with the standard scouting routine.

### 5. Action Plan (prioritized)

• Monitor Crop Vigor (NDVI): Continue to observe the NDVI trend to ensure your wheat progresses towards peak vigor (above 0.7) as it matures.

• WHAT: Regularly check NDVI maps.

• WHEN: Weekly.

• WHY: To track overall crop health and identify any areas of concern early.

• Field Scouting: Regularly walk your fields to visually inspect crop health.

• WHAT: Look for any signs of nutrient deficiencies, pest damage, or disease symptoms.

• WHEN: At least once a week.

• WHY: Early detection of issues allows for timely intervention.

### 6. Risk Outlook

For the next 714 days, your wheat crop appears to be in good condition with no immediate Kc is high relative to reference ET, but absolute crop water demand remains low/moderate due to low atmospheric demand. Continue to monitor weather forecasts, as any significant increase in temperature or wind could increase the crop's water demand (ETc), even if Kc remains high. Keep an eye on the crop's progression towards its reproductive stages, as this will be a critical period for water availability.

Water Demand Reference

- Recommended ETc: 0.29712739341162175 mm/day
- Applied irrigation: not available
- Efficiency: not calculated

## DATA LIMITATIONS

Limitations: this report does not include field sensor (IoT) data, lab soil analysis for this parcel.

## PROFESSIONAL DISCLAIMER

*This report is generated for decision-support purposes only. It does not replace professional agronomic advice, field inspection, laboratory analysis, or local regulatory requirements. Irrigation, fertilization and crop management decisions should be reviewed with a qualified agronomist or crop advisor before implementation.*